

CLASS

**7th to 8th
Moving**

CODE A



MODULUS
SMART SCHOOL

PRE-FOUNDATION | CUET | NDA | CLAT | IPMAT

Dream

Believe

Achieve

Intelli-Mind Scholarship Exam

MAXIMUM TIME - 1:30 Hrs.

MAXIMUM MARKS: 60

GENERAL INSTRUCTIONS for The Test :-

- **The question paper consists of 3 sections (Section –A contains Science, Section-B contains Mathematics, Section-C contains English.**
- **This Question Paper contains a total of 60 questions.**
- **Write the correct answer for each question in your answer sheet.**
- **All questions are single correct type questions, each of these questions has four choices (A), (B), (C) and (D) out of which **ONLY ONE** is correct.**
- **For each question, you will be awarded **4 marks** if you have darkened only the bubble corresponding to the correct answer.**
- **Zero mark if no bubble is darkened.**
- **In all other cases, minus one (–1) mark will be awarded.**

Student's Signature

Invigilator's Signature

Section – A (CHEMISTRY)

1. Sunidhi was asked by her teacher to prepare a dilute sulphuric acid from concentrated sulphuric acid. What should she do?

- (a) Add water to the acid
- (b) Add acid to the water
- (c) Add a base to the concentrated acid
- (d) Add an alkali to the concentrated acid

2. State which of the following is not likely to be an element.

I. On heating it gives off a gas and leaves a residue.

II. Burns in air to form carbon dioxide and water.

III. Changes into solid at 273 K and to a gas at 373 K.

- (a) I
- (b) II and III
- (c) I and III
- (d) I, II, III

3. Which of the following statement is INCORRECT?

(a) H_2SO_4 is known as KING OF CHEMICALS.

(b) Aqua Regia is a mixture of conc. HCl and conc. HNO_3 in the ratio of 3 : 1

(c) The acid found in lemons is oxalic acid.

(d) The characteristic properties of acids is due to the hydronium ion.

4. Which of the following can be used to disinfect the clean water in a sewage treatment plant before releasing it into the distribution system?

A. Iodine B. Ozone C. Oxygen D. Chlorine

- (a) A and B
- (b) B and C
- (c) B and D
- (d) only D

5. WWTP stands for:

- (a) Waste water therapy
- (b) Waste water treatment plant
- (c) Waste water travel plant
- (d) none of these

6. Acids are the substances which:

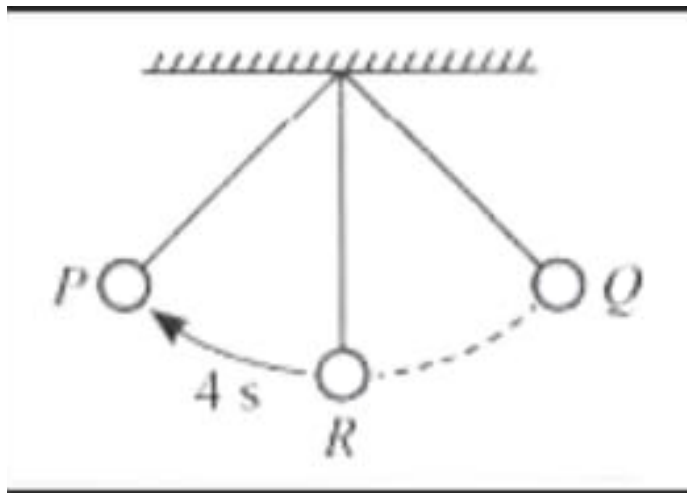
- (a) Liberate hydrogen ions in solution
- (b) Liberate hydroxyl ions in solution
- (c) Accept hydrogen ions in solution
- (d) Accept hydroxyl ions in solution

7. Number of protons, neutrons and electrons in sulphide ion are respectively:

- (a) 16, 16 and 18
- (b) 17, 16 and 18
- (c) 18, 17 and 16
- (d) 18, 16 and 17

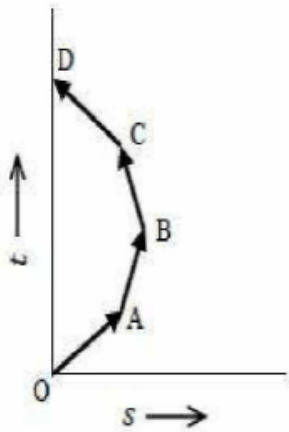
PHYSICS

8. If the time taken by the bob of a pendulum to move from point R to P is 4 s, then the time taken by it to complete its one oscillation is:- **(MOTION AND TIME)**



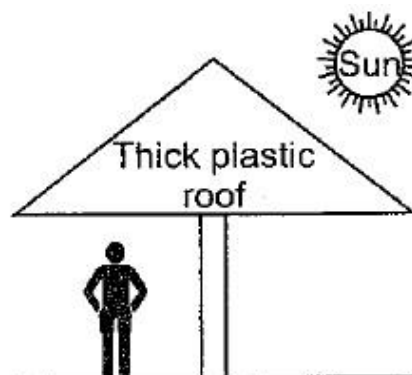
- (a) 8s
(b) 12s
(c) 16s
(d) 4s

9. Which of the following options is correct for the object having a straight-line motion represented by the following graph? **(MOTION AND TIME)**



- (a) The object moves with constantly increasing velocity from O to A and then it moves with constant velocity,
(b) Velocity of the object increases uniformly
(c) Average velocity is zero
(d) The graph shown is impossible

10. The diagram shows a man standing under a shelter on a sunny day. Given that the man feels hot, which of the following shows the processes of how thermal energy from the Sun reaches the man? **(Heat)**



- (a) Radiation - Conduction – Radiation
(c) Radiation - Convection – Radiation

- (b) Radiation - Conduction - Convection
(d) Radiation - Convection – Convection

11. Cooking utensils are supposed to transfer the heat from the source to the food being cooked. Which of the following is not a good choice for making cooking utensils? (**Heat**)

- (a) Steel
(c) Brass
(b) Copper
(d) Plastic

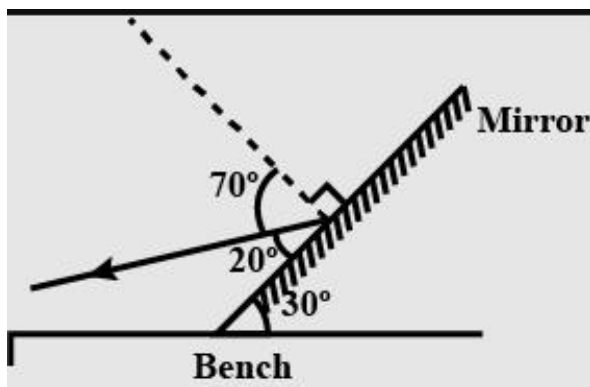
12. Choose the statement which is not correct in the case of an electric fuse. (**ELECTRIC CURRENT AND ITS EFFECTS**)

- (a). Fuses are inserted in electric circuits of all buildings
(b). There is a maximum limit on the current which can safely flow through the electric circuits
(c). There is a minimum limit on the current which can safely flow in the electric circuits
(d). If a proper fuse is inserted in a circuit it will blow off if current exceeds the safe limit

13. You are provided with a concave mirror, a convex mirror, a concave lens and a convex lens. To obtain an enlarged image of an object you can use either

- (a) Concave mirror or convex mirror
(c) Concave mirror or concave lens.
(b) Concave mirror or convex lens.
(d) Concave lens or convex lens.

14. A mirror is tilted at an angle of 30 degree to the bench. A ray of light is directed so that it hits the mirror at an angle of 20 degree to the surface of the mirror. What is the angle of reflection?



- (a) 20°
(c) 65°
(b) 40°
(d) 70°

BIOLOGY

15. Organisms which convert dead plants and animals to humus are known as
(a) Herbivores (b) Carnivores
(c) Producers (d) Decomposers
16. Respiration can occur
(a) Only at Night (b) Only during the day
(c) Both day and Night (d) none of these
17. Transfer of pollen from anther to the stigma of another flower?
(a) Self-pollination (b) Cross-pollination
(c) Fertilization (d) All of these
18. The first compartment of cattle's stomach whose main function is to digest cellulose is
(a) Rumen (b) Reticulum
(c) Omasum (d) Abomasums
19. The transpiration in plants will be lowest when
(a) There is high humidity in the atmosphere. (b) There is excess of water in the cell
(c) Environmental conditions are very dry (d) There is high wind velocity
20. Which of the following best explains why many birds and mammals migrate during the winter?
(a) To escape predators.
(b) To reproduce in a more favorable environment
(c) To find a better environment in which to settle permanently.
(d) To find a more favorable environment in which to hibernate.

Section – B (Mathamatic)

21. Of the three angles of a triangle, one is twice the smallest and another is three times the smallest. Find the smallest angle.
(a) 30° (b) 40°
(c) 35° (d) 40°
22. $(-27) \times (-16) + (-27) \times (-14) = ?$
(a) -810 (b) 810
(c) -54 (d) 54
23. How much pure alcohol must be added to 400 ml of a 15% solution to make its strength 32%
(a) 40 ml (b) 125 ml
(c) 100 ml (d) 150 ml
24. A man goes 10 m due east and then 24 m due north. Find his distance from the starting point
(a) 26 m (b) 25
(c) 24 (d) 27

25. If a, b, c are integers, such that $a > b$, then

- (a) $a \times c > b \times c$, if c is positive
(b) $a \times c > b \times c$, if c is negative
(c) $a \times c < b \times c$, if c is positive
(d) None of these

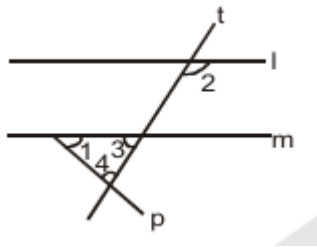
26. In a $\triangle ABC$, AD is the altitude from A such that $AD = 12$ cm, $BD = 9$ cm and $DC = 16$ cm. Examine if $\triangle ABC$ is right angled at A ?

- (a) Yes
(b) No
(c) Cannot say
(d) None of these

27. The weight of 34 bags of sugar is 3483.3 kg. If all bags weigh equally, find the weight of each bag.

- (a) 102.45 kg
(b) 102 kg
(c) 101.45 kg
(d) 101 kg

28. In figure, line $l \parallel m$, $\angle 1 = 60^\circ$ and $\angle 2 = 100^\circ$, find $\angle 4$



- (a) 80°
(b) 30°
(c) 50°
(d) 40°

29. What should be subtracted from .1 to get .03 ?

- (a) .7
(b) .07
(c) .007
(d) None of these

30. A picture frame is 80 cm by 60 cm then its diagonal is

- (a) 75 cm
(b) 95 cm
(c) 90 cm
(d) 100 cm

31. Find two numbers such that one of them exceeds the other by 9 and their sum is 81.

- (a) 45, 36
(b) 36, 47
(c) 27, 36
(d) 54, 45

32. If $x \times y \times y - x \times y^* = + \times$ then find $(-10) \times 5$

- (a) 45
(b) 35
(c) - 35
(d) - 45

33. Two poles of heights 6 m and 11 m stand on a plane ground. If the distance between their feet is 12 m, Find the distance between their tops.

- (a) 13 m.
(b) 10 m.
(c) 11 m.
(d) 9 m.

34. Which of the following numbers would not have digit 1 at units place ?

- (a) $(29)^2$
(b) $(41)^2$
(c) $(53)^2$
(d) $(69)^2$

35. Ages of two friends are in the ratio 2 : 1. If the sum of their ages is 51. Then their ages are

- (a) 34 yrs, 20 yrs
- (b) 34 yrs, 17 yrs
- (c) 20 yrs, 10 yrs
- (d) 30 yrs, 15 yrs

36. If the numbers 7, 14, 28 are in continued proportion, then the mean proportion between 7 and 28 is

- (a) 7
- (b) 14
- (c) 28
- (d) 196

37. The value of expression

$$10,000 \div \{(80 + 100 \div 5) \times 100\} \text{ is}$$

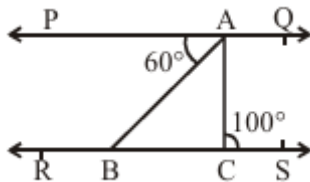
- (a) 1
- (b) 2
- (c) 3
- (d) 4

38. For what value of x, the mode of the following data is 11 ?

7, 9, 11, 17, 11, 19, 21, 9, x-4.

- (a) 11
- (b) 15
- (c) 7
- (d) 12

39. In the given fig $PQ \parallel RS$, $\angle PAB = 60^\circ$ and $\angle ACS = 100^\circ$. Then $\angle BAC = ?$



- (a) 40°
- (b) 60°
- (c) 80°
- (d) 50°

40. The name of the figure which has 6 vertices, 9 edges and 5 faces is

- (a) cuboid
- (b) cube
- (c) cone
- (d) triangular prism

41. If the base of a triangle is halved and its height is doubled, then the area of the resulting triangle.

- (a) increases
- (b) decreases
- (c) doubles
- (d) remain same

42. Simplify: $3x + 5x - 2x$

- a) $6x$
- b) $8x$
- c) $3x$
- d) $10x$

43. A triangle has angles 50° and 60° . What is the third angle?

- a) 60°
- b) 70°
- c) 80°
- d) 90°

44. What is the sum of adjacent supplementary angles?

- a) 90°
- b) 120°
- c) 180°
- d) 360°

45. What is the term for two lines that never meet?

- a) Parallel
- b) Perpendicular
- c) Intersecting
- d) None

46. 1. If x is an integer such that $-10 \leq x \leq 10$, how many values of x satisfy $|x - 3| < 5$?

- a) 5
- b) 7
- c) 9
- d) 10

47. Evaluate: $(-2)^4 - (-3)^3 + (-5)^2$

- a) 50
- b) 55
- c) 58
- d) 60

48. In $\triangle ABC$, if $\tan A = 3/4$ and $\sin B = 5/13$, what is the length of side BC if $AC = 10$?

- a) 12
- b) 13
- c) 15
- d) 16

49. A triangle has sides of length 7 cm, 24 cm, and x cm. If it is a right-angled triangle, what is the value of x ?

- a) 25
- b) 26
- c) 23
- d) 24

50. The exterior angle of a triangle is 110° , and one of the opposite interior angles is 45° . What is the other interior angle?

- a) 55°
- b) 65°
- c) 75°
- d) 85°

Section – C (ENGLISH)

(Poem)

Great, wide, beautiful, wonderful World,
With the wonderful water round you curled,
And the wonderful grass upon your breast—
World, you are beautifully drest.
The wonderful air is over me,
And the wonderful wind is shaking the tree,
It walks on the water, and whirls the mills,
And talks to itself on the tops of the hills.
You friendly Earth, how far do you go,
With the wheat-fields that nod and the rivers that flow,
With cities and gardens, and cliffs, and isles,
And people upon you for thousands of miles?
Ah! you are so great, and I am so small,
I tremble to think of you, World, at all;
And yet, when I said my prayers to-day,
A whisper inside me seemed to say,
'You are more than the Earth, though you are such a dot:
You can love and think, and the Earth cannot!'

Questions:

Now answer the following questions by choosing correct options:

51. In the poem above 'beautifully drest' refers to

- (a) having gaudy dress (b) decorated with nature's beauty
(c) wearing costly dresses (d) wearing cheap but beautiful dresses.

52. The poet calls the world 'beautifully drest' because

- (a) it looks beautiful (b) it has wonderful grass curled around it
(c) it is covered with fine clothes (d) it is covered with green leaves.

53. The wind in the poem talks to

- (a) passersby (b) trees
(c) clouds (d) itself.

54. The poet calls the earth

- (a) unfriendly (b) friendly
(c) proud (d) kind.

55. The phrase such a dot means

- (a) so small (b) so fat
(c) so big (d) so kind

56. Read the following sentences carefully and fill in the blanks with the most suitable prepositions from the alternatives given below:

I was born Shahdara Delhi.

- (a) in, in (b) at, in
(c) at, at (d) on, at

57. Fill in the blanks with correct form of verb by choosing the right answer from the given alternatives:

Did you this colour? (choose)

- (a) choose (b) chose
(c) be chosen (d) chosen

58. Choose the word that is most nearly similar in meaning to the word in capital letters.

1. VENTURESOME

- (a) daring (b) fleeting
(c) evanescent (d) traitor

Choose the pair of words that best expresses a relationship similar to that expressed in the pairs of words in capital.

59. SEISMOGRAPH : EARTHQUAKE

- (a) water : tsunami (b) electricity : voltage
(c) thermometer : temperature (d) snow : drift

60. JOY : ECSTASY

- (a) like : dislike (b) interest : fascinate
(c) information : privacy (d) join : conjoin